# Zhaoyan Zhang

List of Publications by Year
in descending order

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| 81 | 2,224 | 218677 | 243625 |
|---|---|---|---|
| papers | citations | 26 h-index | 44 g-index |

| 96 | 96 | 96 | 999 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Mechanics of human voice production and control. Journal of the Acoustical Society of America, 2016, 140, 2614-2635. | 1.1 | 234 |
| 2 | Coherent structures of the near field flow in a self-oscillating physical model of the vocal folds. Journal of the Acoustical Society of America, 2007, 121, 1102-1118. | 1.1 | 159 |
| 3 | The influence of subglottal acoustics on laboratory models of phonation. Journal of the Acoustical Society of America, 2006, 120, 1558-1569. | 1.1 | 124 |
| 4 | Cause-effect relationship between vocal fold physiology and voice production in a three-dimensional phonation model. Journal of the Acoustical Society of America, 2016, 139, 1493-1507. | 1.1 | 111 |
| 5 | Measurement of Young's Modulus of Vocal Folds by Indentation. Journal of Voice, 2011, 25, 1-7. | 1.5 | 107 |
| 6 | Characteristics of phonation onset in a two-layer vocal fold model. Journal of the Acoustical Society of America, 2009, 125, 1091-1102. | 1.1 | 76 |
| 7 | Experimental verification of the quasi-steady approximation for aerodynamic sound generation by pulsating jets in tubes. Journal of the Acoustical Society of America, 2002, 112, 1652-1663. | 1.1 | 75 |
| 8 | Aerodynamically and acoustically driven modes of vibration in a physical model of the vocal folds. Journal of the Acoustical Society of America, 2006, 120, 2841-2849. | 1.1 | 70 |
| 9 | Physical mechanisms of phonation onset: A linear stability analysis of an aeroelastic continuum model of phonation. Journal of the Acoustical Society of America, 2007, 122, 2279-2295. | 1.1 | 60 |
| 10 | Toward a unified theory of voice production and perception. Loquens, 2014, 1, e009. | 0.1 | 60 |
| 11 | Asymmetric vibration in a two-layer vocal fold model with left-right stiffness asymmetry: Experiment and simulation. Journal of the Acoustical Society of America, 2012, 132, 1626-1635. | 1.1 | 48 |
| 12 | Regulation of glottal closure and airflow in a three-dimensional phonation model: Implications for vocal intensity control. Journal of the Acoustical Society of America, 2015, 137, 898-910. | 1.1 | 45 |
| 13 | Influence of vocal fold stiffness and acoustic loading on flow-induced vibration of a single-layer vocal fold model. Journal of Sound and Vibration, 2009, 322, 299-313. | 3.9 | 42 |
| 14 | Effect of vocal fold stiffness on voice production in a three-dimensional body-cover phonation model. Journal of the Acoustical Society of America, 2017, 142, 2311-2321. | 1.1 | 41 |
| 15 | Sound generation by steady flow through glottis-shaped orifices. Journal of the Acoustical Society of America, 2004, 116, 1720-1728. | 1.1 | 40 |
| 16 | Functional testing of a tissueâ€engineered vocal fold cover replacement. Otolaryngology - Head and Neck Surgery, 2010, 142, 438-440. | 1.9 | 40 |
| 17 | Phonation threshold pressure and onset frequency in a two-layer physical model of the vocal folds. Journal of the Acoustical Society of America, 2011, 130, 2961-2968. | 1.1 | 38 |
| 18 | Acoustic and perceptual effects of changes in body layer stiffness in symmetric and asymmetric vocal fold models. Journal of the Acoustical Society of America, 2013, 133, 453-462. | 1.1 | 35 |

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|---|---|---|---|
| 19 | Dependence of phonation threshold pressure and frequency on vocal fold geometry and biomechanics. Journal of the Acoustical Society of America, 2010, 127, 2554-2562. | 1.1 | 34 |
| 20 | The influence of thyroarytenoid and cricothyroid muscle activation on vocal fold stiffness and eigenfrequencies. Journal of the Acoustical Society of America, 2013, 133, 2972-2983. | 1.1 | 34 |
| 21 | Influence of Embedded Fibers and an Epithelium Layer on the Glottal Closure Pattern in a Physical Vocal Fold Model. Journal of Speech, Language, and Hearing Research, 2014, 57, 416-425. | 1.6 | 32 |
| 22 | Influence of flow separation location on phonation onset. Journal of the Acoustical Society of America, 2008, 124, 1689-1694. | 1.1 | 31 |
| 23 | Restraining mechanisms in regulating glottal closure during phonation. Journal of the Acoustical Society of America, 2011, 130, 4010-4019. | 1.1 | 31 |
| 24 | Respiratory Laryngeal Coordination in Airflow Conservation and Reduction of Respiratory Effort of Phonation. Journal of Voice, 2016, 30, 760.e7-760.e13. | 1.5 | 29 |
| 25 | A vocal-tract model of American English /l/. Journal of the Acoustical Society of America, 2004, 115, 1274-1280. | 1.1 | 28 |
| 26 | Interaction Between the Thyroarytenoid and Lateral Cricoarytenoid Muscles in the Control of Vocal Fold Adduction and Eigenfrequencies. Journal of Biomechanical Engineering, 2014, 136, . | 1.3 | 28 |
| 27 | Mechanisms of irregular vibration in a physical model of the vocal folds. Journal of the Acoustical Society of America, 2006, 120, EL36-EL42. | 1.1 | 26 |
| 28 | Voice production in a MRI-based subject-specific vocal fold model with parametrically controlled medial surface shape. Journal of the Acoustical Society of America, 2019, 146, 4190-4198. | 1.1 | 24 |
| 29 | Broadband sound generation by confined turbulent jets. Journal of the Acoustical Society of America, 2002, 112, 677-689. | 1.1 | 22 |
| 30 | Vibration in a self-oscillating vocal fold model with left-right asymmetry in body-layer stiffness. Journal of the Acoustical Society of America, 2010, 128, EL279-EL285. | 1.1 | 22 |
| 31 | Effects of Implant Stiffness, Shape, and Medialization Depth on the Acoustic Outcomes of Medialization Laryngoplasty. Journal of Voice, 2015, 29, 230-235. | 1.5 | 22 |
| 32 | Tissueâ€Engineered Vocal Fold Mucosa Implantation in Rabbits. Otolaryngology - Head and Neck Surgery, 2016, 154, 679-688. | 1.9 | 22 |
| 33 | Quantitative Evaluation of the In Vivo Vocal Fold Medial Surface Shape. Journal of Voice, 2017, 31, 513.e15-513.e23. | 1.5 | 20 |
| 34 | Vocal instabilities in a three-dimensional body-cover phonation model. Journal of the Acoustical Society of America, 2018, 144, 1216-1230. | 1.1 | 20 |
| 35 | Estimation of vocal fold physiology from voice acoustics using machine learning. Journal of the Acoustical Society of America, 2020, 147, EL264-EL270. | 1.1 | 20 |
| 36 | Effects of vocal fold epithelium removal on vibration in an excised human larynx model. Journal of the Acoustical Society of America, 2015, 138, EL60-EL64. | 1.1 | 18 |

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|---|---|---|---|
| 37 | Compensation Strategies in Voice Production With Glottal Insufficiency. Journal of Voice, 2019, 33, 96-102. | 1.5 | 18 |
| 38 | Experimental validation of a three-dimensional reduced-order continuum model of phonation. Journal of the Acoustical Society of America, 2016, 140, EL172-EL177. | 1.1 | 17 |
| 39 | Threeâ€dimensional posture changes of the vocal fold from paired intrinsic laryngeal muscles. Laryngoscope, 2017, 127, 656-664. | 2.0 | 17 |
| 40 | The influence of material anisotropy on vibration at onset in a three-dimensional vocal fold model. Journal of the Acoustical Society of America, 2014, 135, 1480-1490. | 1.1 | 15 |
| 41 | A parametric vocal fold model based on magnetic resonance imaging. Journal of the Acoustical Society of America, 2016, 140, EL159-EL165. | 1.1 | 15 |
| 42 | Broadband sound generation by confined pulsating jets in a mechanical model of the human larynx. Journal of the Acoustical Society of America, 2006, 119, 3995-4005. | 1.1 | 14 |
| 43 | Biaxial mechanical properties of human vocal fold cover under vocal fold elongation. Journal of the Acoustical Society of America, 2017, 142, EL356-EL361. | 1.1 | 14 |
| 44 | Measurement of Cough Aerodynamics in Healthy Adults. Annals of Otology, Rhinology and Laryngology, 2017, 126, 396-400. | 1.1 | 13 |
| 45 | Effects of thyroplasty implant stiffness on glottal shape and voice acoustics. Laryngoscope Investigative Otolaryngology, 2020, 5, 82-89. | 1.5 | 13 |
| 46 | Neuromuscular induced phonation in a human ex vivo perfused larynx preparation. Journal of the Acoustical Society of America, 2013, 133, EL114-EL117. | 1.1 | 12 |
| 47 | On the acoustical relevance of supraglottal flow structures to low-frequency voice production. Journal of the Acoustical Society of America, 2010, 128, EL378-EL383. | 1.1 | 11 |
| 48 | Hirano's coverâ€“body model and its unique laryngeal postures revisited. Laryngoscope, 2018, 128, 1412-1418. | 2.0 | 11 |
| 49 | Laryngeal strategies to minimize vocal fold contact pressure and their effect on voice production. Journal of the Acoustical Society of America, 2020, 148, 1039-1050. | 1.1 | 11 |
| 50 | Three-dimensional vocal fold structural change due to implant insertion in medialization laryngoplasty. PLoS ONE, 2020, 15, e0228464. | 2.5 | 11 |
| 51 | A computational study of the effect of intraglottal vortex-induced negative pressure on vocal fold vibration. Journal of the Acoustical Society of America, 2014, 136, EL369-EL375. | 1.1 | 10 |
| 52 | Laryngeal muscular control of vocal fold posturing: Numerical modeling and experimental validation. Journal of the Acoustical Society of America, 2016, 140, EL280-EL284. | 1.1 | 10 |
| 53 | Contribution of laryngeal size to differences between male and female voice production. Journal of the Acoustical Society of America, 2021, 150, 4511-4521. | 1.1 | 10 |
| 54 | Vocal fold contact pressure in a three-dimensional body-cover phonation model. Journal of the Acoustical Society of America, 2019, 146, 256-265. | 1.1 | 9 |

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|---|---|---|---|
| 55 | Dynamics of Intrinsic Laryngeal Muscle Contraction. Laryngoscope, 2019, 129, E21-E25. | 2.0 | 9 |
| 56 | Interaction between epilaryngeal and laryngeal adjustments in regulating vocal fold contact pressure. JASA Express Letters, 2021, 1, 025201. | 1.1 | 9 |
| 57 | In vivo vocal fold cover layer replacement. Laryngoscope, 2015, 125, 406-411. | 2.0 | 8 |
| 58 | Computational simulations of respiratory-laryngeal interactions and their effects on lung volume termination during phonation: Considerations for hyperfunctional voice disorders. Journal of the Acoustical Society of America, 2021, 149, 3988-3999. | 1.1 | 8 |
| 59 | A Computational Study of Vocal Fold Dehydration During Phonation. IEEE Transactions on Biomedical Engineering, 2017, 64, 2938-2948. | 4.2 | 7 |
| 60 | Impact of the Paraglottic Space on Voice Production in an MRI-Based Vocal Fold Model. Journal of Voice, 2023, 37, 633.e15-633.e23. | 1.5 | 7 |
| 61 | Voice outcomes following laser cordectomy for early glottic cancer: A physical model investigation. Laryngoscope, 2014, 124, 1882-1886. | 2.0 | 6 |
| 62 | Preliminary Study of the Open Quotient in an Ex Vivo Perfused Human Larynx. JAMA Otolaryngology - Head and Neck Surgery, 2015, 141, 751. | 2.2 | 6 |
| 63 | Vocal Fundamental Frequency and Sound Pressure Level in Charismatic Speech: A Cross-Gender and -Language Study. Journal of Voice, 2020, 34, 808.e1-808.e13. | 1.5 | 6 |
| 64 | Voice Feature Selection to Improve Performance of Machine Learning Models for Voice Production Inversion. Journal of Voice, 2023, 37, 479-485. | 1.5 | 6 |
| 65 | On the difference between negative damping and eigenmode synchronization as two phonation onset mechanisms. Journal of the Acoustical Society of America, 2011, 129, 2163-2167. | 1.1 | 5 |
| 66 | Impact of Vocal Tract Resonance on the Perception of Voice Quality Changes Caused by Varying Vocal Fold Stiffness. Acta Acustica United With Acustica, 2016, 102, 209-213. | 0.8 | 5 |
| 67 | Toward real-time physically-based voice simulation: An Eigenmode-based approach. Proceedings of Meetings on Acoustics, 2017, 30, . | 0.3 | 5 |
| 68 | Effect of changes in medial surface shape on voice production in excised human larynges. Journal of the Acoustical Society of America, 2019, 146, EL412-EL417. | 1.1 | 5 |
| 69 | Structural constitutive modeling of the anisotropic mechanical properties of human vocal fold lamina propria. Journal of the Acoustical Society of America, 2019, 145, EL476-EL482. | 1.1 | 4 |
| 70 | The role of thyroarytenoid muscles in regulating glottal closure in an in vivo canine larynx model. Proceedings of Meetings on Acoustics, 2014, 22, . | 0.3 | 3 |
| 71 | Computational Study of the Impact of Dehydration-Induced Vocal Fold Stiffness Changes on Voice Production. Journal of Voice, 2022, , . | 1.5 | 3 |
| 72 | Oral vibratory sensations during voice production at different laryngeal and semi-occluded vocal tract configurations. Journal of the Acoustical Society of America, 2022, 152, 302-312. | 1.1 | 3 |

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|---|---|---|---|
| 73 | Influence of epithelium and fiber locations on glottal closure and sound production at soft-phonation conditions. Proceedings of Meetings on Acoustics, 2013, , . | 0.3 | 2 |
| 74 | Effects of Arytenoid Adduction Suture Position on Voice Production and Quality. Laryngoscope, 2021, 131, 846-852. | 2.0 | 2 |
| 75 | Effects of Laryngeal Vibratory Asymmetry and Neuromuscular Compensation on Voice Quality. Laryngoscope, 2022, 132, 130-134. | 2.0 | 2 |
| 76 | Vocal tract adjustments to minimize vocal fold contact pressure during phonation. Journal of the Acoustical Society of America, 2021, 150, 1609-1619. | 1.1 | 2 |
| 77 | Estimating subglottal pressure and vocal fold adduction from the produced voice in a single-subject study (L). Journal of the Acoustical Society of America, 2022, 151, 1337-1340. | 1.1 | 2 |
| 78 | Contribution of Undesired Medial Surface Shape to Suboptimal Voice Outcome After Medialization Laryngoplasty. Journal of Voice, 2022, , . | 1.5 | 2 |
| 79 | The influence of thyroarytenoid and cricothyroid muscle activation on vocal fold stiffness and eigenfrequencies. Proceedings of Meetings on Acoustics, 2013, , . | 0.3 | 1 |
| 80 | Perceptual Evaluation of Vocal Fold Vibratory Asymmetry. Laryngoscope, 2021, 131, 2740-2746. | 2.0 | 1 |
| 81 | The Physical Aspects of Vocal Health. Acoustics Today, 2021, 17, 60. | 1.0 | 1 |